

ABSTRACT OF THE DISCLOSURE

A semiconductor device comprises: a first main electrode; a second main electrode; a semiconductor base region of a first conductivity type; a gate electrode provided in a trench through an insulating film, the trench being formed to penetrate the semiconductor base region; and a first semiconductor region of a first conductivity type and a second semiconductor region of a second conductivity type provided under the semiconductor base region. A flow of a current between the first and second main electrodes when a voltage of a predetermined direction is applied between these electrodes is controllable in accordance with a voltage applied to the gate electrode. A depleted region extends from a junction between the first and the second semiconductor regions reaching the trench.